DMR SERVO DRIVES

The DMR series is a series of customized drives dedicated to logistic automation market.

The series features two models: DMR 50-5/50 and DMR76-10/65, designed and manufactured for driving gearless motorollers, exploiting its technological advantages based on direct drive without any gear for motion transmission.

DMR 50-5/50 FEATURES

> DUAL AXES OPERATION CAPABILITY

> PERFECT MATCH WITH GEARLESS MOTOROLLER MTR46

> I/O PROGRAMMABILITY

> FUSE PROTECTION

> CROSSBELT FUNCTIONALITY

> CONVEYOR FUNCTIONALITY

> SPEED AND ACCELERATION PROGRAMMABILITY

> HALL SENSOR AND ENCODER FEEDBACK

> DMR BROWSER SOFTWARE INTERFACE

> RS 485 PROGRAMMING INTERFACE

> CAN OPEN FIELDBUS

> PHOTO EYE SUPPORT

> 2 INPUT, 2 OUTPUT RELAY EACH AXIS

CE

CANopen

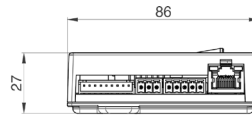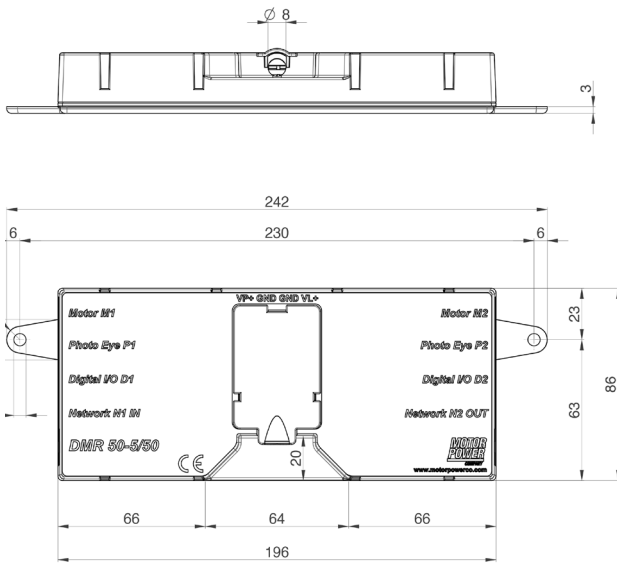## DMR 50-5/50 PRODUCT DATA

FEATURE	UNITS	DMR 50-5/50
Rated output power	W	180 each axis
Efficiency at rated power	%	>95
Operating supply voltage	Vdc	12-60
Typical supply voltage	Vdc	48
Maximum operating voltage	Vdc	80
Auxiliary supply voltage		24 V (8-30)
Rated output current	Arms	5
Peak output current	Arms	15
Peak time	s	3
PWM switching frequency	kHz	16 kHz
Maximum outputfrequency	Hz	<600
Commutation		Sinusoidal and space vector
Dimensions	WxDxH mm	196x70x27
Working temperature	°C	-20 ÷ +55
Storage temperature	°C	-40 ÷ +75
Humidity	%	85% not consdensing
Altitude without derating	m	1000
IP protection	IP	20

DMR 50-5/50 PRODUCT DIMENSIONS

Dimensions in mm

DMR 50-5/50 PRODUCT DATA

MOTOR CONNECTION	
PIN	NAME
1	Phase U
2	Phase V
3	Phase W
4	Thermal sensor
5	Power supply 5V
6	0V
7	Hall U/Inc A
8	Hall V/Inc B
9	Hall W/Inc Z

PHOTO EYE INPUT	
PIN	NAME
1	24V
2	GND
3	Photo eye input

POWER CONNECTION	
PIN	NAME
1	24V logic
2	0 V
3	48 V power

I/O DEFINITION		
PIN	DIRECTION	FUNCTION
1	Input	Enable
2	Input	Dir
3	Input	Analogf Input
4	Output	Fault
5	Output	Configurable

SEE IT BEFORE IT HAPPENS

MOTOR POWER COMPANY

DMR *SERVO DRIVES*

DMR 76-10/65 HP is a digital drive for motorollers in cross belt applications. Main features of this drive are current digital control achieved with the technique of vector space and updated with a 10 kHz frequency. Speed digital loop with proportional-integral compensator updated with 10 kHz frequency. Position digital loop with proportional compensator and handling of dead zone updated with 10 kHz frequency. Digital Profibus interface for connecting to supervisor PLC. Motor feedback interface via Hall sensors.

DMR 76-10/65 FEATURES

> **THE PERFECT MATCHED DRIVE FOR GEARLESS MOTOROLLER MTR76**

> **USB PROGRAMMING INTERFACE**

> **PROFIBUS FIELBUS DP V1**

> **I/O PROGRAMMABILITY**

> **I/O PROXY DUAL LOOP**

> **DMR BROWSER SOFTWARE INTERFACE**

> **FUSE PROTECTION**

> **CROSSBELT FUNCTIONALITY**

> **SPEED AND ACCELERATION PROGRAMMABILITY**

> **HALL SENSOR AND ENCODER FEEDBACK**

> **2 INPUT, 2 OUTPUT RELAY**

CE

PROFI BUS ®

DMR 76-10/65 PRODUCT DATA

FEATURE	UNITS	DMR 76-10/65
Rated output power	W	650
Efficiency at rated power	%	>95
Operating supply voltage	Vdc	24-80
Typical supply voltage	Vdc	48-65
Maximum operating voltage	Vdc	85
Auxiliary supply voltage		-
Rated output current	Arms	10
Peak output current	Arms	50
Peak time	s	0,75 on 20s
PWM switching frequency	kHz	16 kHz
Maximum outputfrequency	Hz	<600
Commutation		Sinusoidal and space vector
Dimensions	WxDxH mm	250x150x45
Working temperature	°C	-20 ÷ +55
Storage temperature	°C	-40 ÷ +75
Humidity	%	85% not consdensing
Altitude without derating	m	1000
IP protection	IP	54 on drive front 40 on the whole drive

SEE IT BEFORE IT HAPPENS

MOTOR POWER COMPANY

DMR 76-10/65

DMR 76-10/65 PRODUCT DATA

### HARDWARE AND FIRMWARE CHARACTERISTICS

> ONE ELECTRONIC BOARD FOR CONTROL LOGIC AND POWER

> ONE SUPPLY FOR ELECTRONIC CONTROL AND MOTOR OUTPUT STAGE

> PROFIBUS SLAVE COMMAND INTERFACE WITH DIP SWITCH NODE ADDRESS SELECTION

> USB DEVICE INTERFACE FOR CONFIGURATION AND MAINTENANCE

> CONTROL THROUGH SINUSOISAL ALGORITHM AND HALL SENSOR FEEDBACK

> GENERIC I/O PROGRAMMABILITY

> I/O PROXI PROGRAMMABILITY

INTERFACE

> THIS DRIVE IS EQUIPPED WITH SOFTWARE USER INTERFACE "DMR BROWSER" FOR OPERATING, MONITORING AND SUPERVISION OF THE APPLICATION. REFER TO THE APPROPRIATE MANUAL FOR INSTALLATION INSTRUCTIONS AND USE.

PRODUCT DIMENSIONS
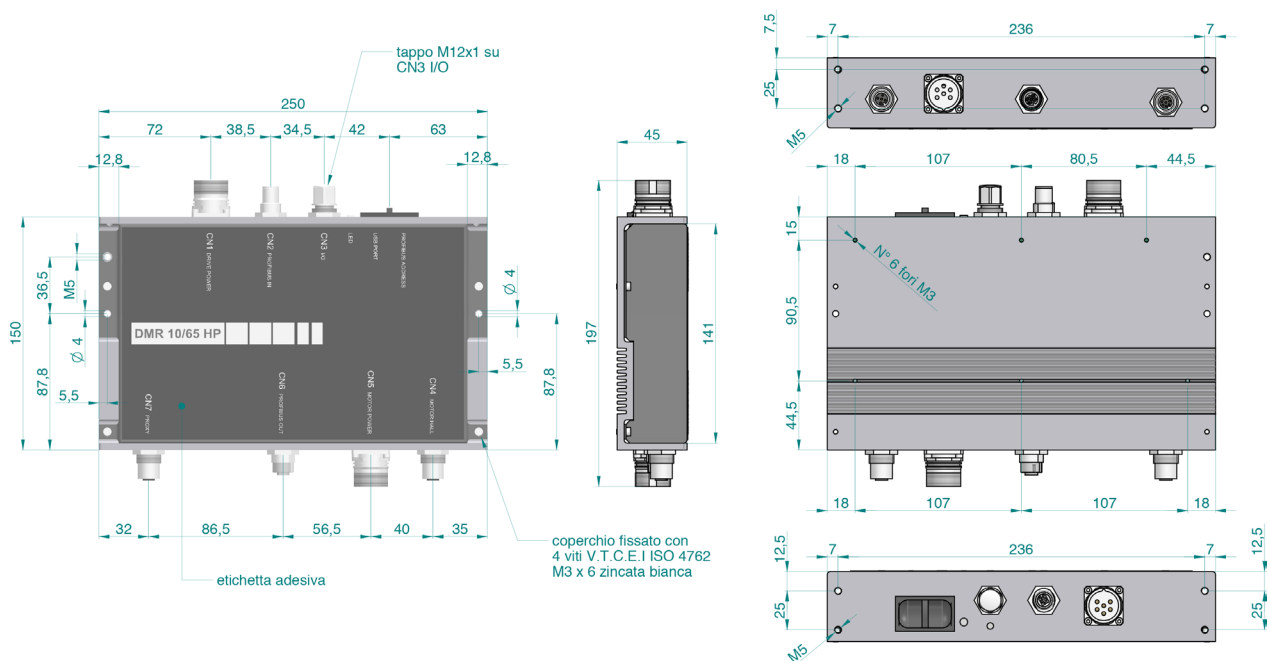
SEE IT BEFORE IT HAPPENS

MOTOR POWER COMPANY

DMR 76-10/65

CONNECTION

DRIVE POWER

PIN	NAME
1	V+
2	-
3	-
4	-
5	V-
6	-

PROFIBUS IN

PIN	NAME
1	-
2	DATA-/A-LINE
3	-
4	-
5	DATA+/B-LINE

PROFIBUS OUT

PIN	NAME
1	V+
2	DATA-/A-LINE
3	V_{REF}
4	DATA+/B-LINE
5	-

DIGITAL I/O

PIN	NAME
1	OUT1 COM
2	INRET 123
3	$+24V_{DC}$
4	OUT1 NC
5	IN1
6	IN2
7	IN3
8	GND ($+24 V_{DC}$)

CONNECTION

MOTOR OUTPUT	
PIN	NAME
1	-
2	U
3	V
4	W
5	-
6	PE

FEEDBACK	
PIN	NAME
1	U/A
2	V/B
3	W/Z
4	$5V_{DC}$
5	GND

PROXY DUAL LOOP	
PIN	NAME
1	$+24V_{DC}$ PROXY
2	INRET 123 PROXY
3	GND ($+24V_{DC}$)
4	OUT2 NO
5	OUT2 NO
6	IN7 PROXY
7	$+24 V_{DC}$
8	OUT2 COM

SEE IT BEFORE IT HAPPENS

MOTOR
POWER
COMPANY

The LITE PRO series is represented by the extremely compact 4-quadrants drives perfect matched to control motoroller 60. This series features as standard CanOpen interface and a complete programmable version with integral Motion Process Unit, that allows stand alone and network architecture operation.

FEATURES

> **STANDARD FEEDBACK TTL ENCODER AND HALL SENSOR**

> **DIGITAL I/O: UP TO 8 DIGITAL INPUTS AND 1 OR 2 DIGITAL OUTPUTS CUSTOMIZIBLE WITH SEVERAL BUILT-IN FUNCTIONS**

> **CONTROL: STANDARD PI CONTROL LOOP**

> **SERVO MODES: TORQUE, VELOCITY AND POSITION WITH S-CURVE PROFILE**

> **INTERNAL SCRIPT**

> **EXTREME COMPACT DESIGN**

> **USB PROGRAMMING KEY**

INTERFACE

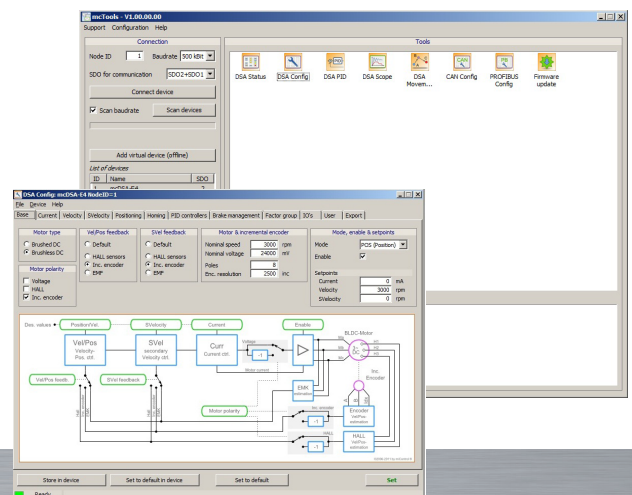> **ANALOG VELOCITY AND TORQUE COMMAND ± 10V**

> **CANopen**

COMPACT AND PROFITABLE

PRODUCT DATA

FEATURE	UNITS	LPRO E40
Input voltage	VDC	48
Efficiency at rated power	%	>95
Auxiliary supply voltage	VDC	9 ... 30
Continuous current	Arms	8
Peak current	Arms	24
Ambient operating temperature	°C	0 to + 40°
Maximum humidity	%	5÷85% not condensing
Mounting method		Wall mounting DIN Rail
Dimensions	LxWxH mm	110x22,5x77
Weight	gr	110
Digital IN		4
Digital OUT		1

LITE PRO USER INTERFACE

> **EASY AND INTUITIVE PC SOFTWARE ALLOWS A FAST PARAMETERIZATION OF THE LITE PRO**

> **SIMPLE SCOPE**

> **SCRIPT EDITING**

SEE IT BEFORE IT HAPPENS

MOTOR
POWER
COMPANY